"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

MINCHEVA, M.; SHERKOV, Sh.; SAVOV, Dr.

Coccidicsis in chicks caused by E. tenella. Izv Vet inst zaraz parazit 9:155-162 '63

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

SHERKOV, V. I.

Iodine values of cellulose. V. I. Sherkov and O. A. Dobush (Zh. prikl. Khim., 1955, 28, 994—999).—Experiments with various samples of cellulose in aq. NaOH showed that the I value depended on oxidation time but more especially on concn. of alkali. Thus cellulose (viscose silk) had an I val. of 2·6 in 4% NaOH but of 6·1 in 16·2% NaOH. The effect of temp. on reaction speed was slight. All wet cellulose specimens showed greater I val. wet than dry ones.

A. L. B.

2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

6(1)

SOV/178-58-7-24/24

AUTHOR: Sherkovin, Yu., Major

TITLE: Some Pecularities of Radio Communications in the US Army (Nekotoryye osobennosti radioobmena v armii SShA)

PERIODICAL: Voyennyy svyazist, 1958, Nr 7, pp 46 - 48 (USSR)

ABSTRACT: The author explains rules of radio communication in the US Army. He used the information contained in "Tactics and Technique of Infantry", Volume II, 1953. There is 1 American reference.

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SHERLAIMOV, A.P.

BOGOSLOVSKIY, Mikhail Alekseyevich, dots., kand.tekhn.nauk; DOHANEVSKIY, N.A., kand.tekhn.nauk, retsenzent; SHERLAIMOV, A.P., retsenzent; MELEKHIN, A.M., retsenzent; VENDROV, S.L., kand.geograf.nauk, red.; MAKRUSHINA, A.N., red.izd-va; SALAZKOV, N.P., tekhn.red.

[Waterways and ports] Vodnye puti i porty. Moskva, Izd-vo "Rechnoi transport." Pt.1. [Investigation of waterways] Issledovaniia vodnykh putei. 1957. 251 p. (MIRA 11:4)
(Inland navigation) (Hydraulic engineering)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

IVANOV, N.Kh.; KALININ, B.S.; LUR'YE, D.A.; LEVONTIN, L.I.; MIROSHNICHENKO, G.K.; SHMYGUL', B.P.; SHERLAIMOV, N.N.; GORSHKOV, A.A., prof., doktor tekhn.nauk, retsenzent; ORLEANSKIY, Ya.P., red.; SOROKA, M.S., red.

[Automatic unit for the production of CO_2. Collected working drawings] Avtomaticheskaia ustanovka dlia proizvodstva CO_2; sbornik rabochikh chertezhei. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 8 p. (MIRA 13:8)

1. Chlen-korrespondent AN USSR (for Gorshkov).
(Carbon dioxide) (Mechanical drawing)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

SHERLAIMOV, N.N.

PHASE I BOOK EXPLOITATION SOV/4445

Ivanov, E. Kh., B.S. Kalinin, D.A. Lur'ye, L.I. Levontin, G.K. Miroshnichenko, B.P. Shnygul', and N.N. Sherlaimov

Avtomaticheskaya ustanovka dlya proizvodstva CO_2; sbornik rabochikh chertezhey (Automatic Plant for the Production of CO_2; Collection of Working Drawings) Moscow, Mashgiz, 1960. 65 sheets. 3,000 copies printed.

Reviewer: A.A. Gorshkov, Corresponding Member, Academy of Sciences UkrSSR, Doctor of Technical Sciences, Professor; Chief Ed. (Southern Division, Mashgiz): V.K. Serdyuk, Engineer; Ed. (Inside book): N.S. Soroka; Ed. (Title page): Ya. P. Orleanskiy.

PURPOSE: This book is intended for technical personnel in foundry shops.

COVERAGE: The book contains 65 drawings of an automatic installation for the production of carbon dioxide. A brief description is also given of basic methods of CO_2 production for general industrial uses and for the food industry.

The installation was exhibited at the All-Union Industrial Exposition in 1953. No personalities are mentioned. There are no references.

TABLE OF CONTENTS: None given. The book is divided as follows:

Card 1/3

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

5.3700

77099
SOV/62-59-12-43/43

AUTHORS: Berlin, A. A., Matveyeva, N. G., Sherle, A. I.

TITLE: Letters to the Editor

PERIODICAL: Izv estiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk 1959, Nr 12, p 2261 (USSR)

ABSTRACT: Reaction of 1 mole of copper salt of acetylacetone with 2 moles of tetracyanoethylene under vacuum, at 160-300°, proceeded with formation of a complex polymer and separation of acetylacetone. The polymer (infusible black substance) was insoluble in organic solvents, in bases and diluted acids. IR absorption spectrum showed no intense absorption bands in the 700-3,000 cm^{-1} range, with the exception of a 2,224 cm^{-1} band corresponding to the CN-group. The following structure of the chelate was suggested:

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APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

Letters to the Editor

77099
SOV/62-59-12-43/43

ASSOCIATION: Anisotropic Structures Laboratory, Academy of Sciences, USSR (Laboratoriya anizotropicheskikh struktur Akademii nauk SSSR)

SUBMITTED: June 5, 1959

Card 3/3

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

20361

S/020/61/136/005/022/032
B101/B206

15.1114 also 1164, 1043, 1143

AUTHORS: Berlin, A. A., Boguslavskiy, L. I., Burshteyn, R. Kh., Matveyeva, N. G., Sherle, A. I., and Shurmovskaya, N. A.

TITLE: Some electrophysical properties of polymer complexes of tetraethylene cyanide with metals

PERIODICAL: Doklady Akademii nauk SSSR, v. 136, no. 5, 1961, 1127-1129

TEXT: The authors deal with the chelate compounds between tetraethylene cyanide and metals. The infusibility and insolubility of these compounds led to the proposal that coatings and plastics be manufactured from them (Ref. 3). The electrophysical properties of polymeric chelate films chemically bonded to metals, which were obtained by treatment of copper, iron, and nickel sheets with tetraethylene-cyanide vapor, were studied in this paper. The degreased and, in some cases, also electropolished or etched metal foils were exposed to tetraethylene-cyanide vapor at 10^{-5} mm Hg and 150 to 400°C. A film firmly sticking to the metal developed, the thickness of which was calculated from the specific gravity of the

Card 1/4

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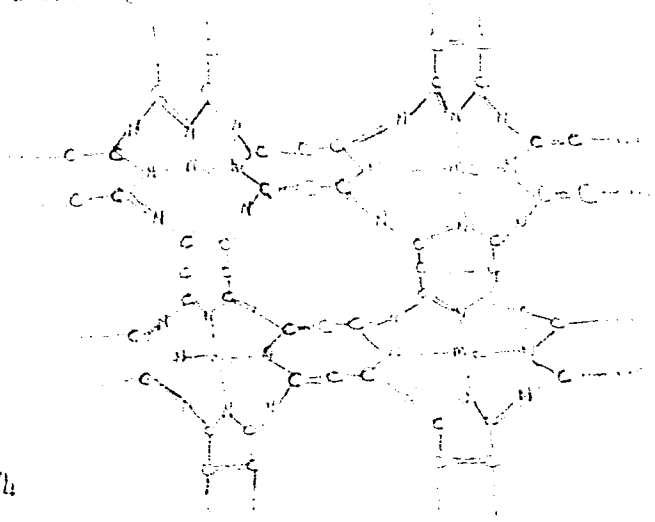
Some electrophysical properties ...

polymer and from the weight of the film as being $5 \cdot 10^{-6} - 3 \cdot 10^{-5}$ cm. (Owing to the poor combustibility of the chelate film, microanalysis produced too low carbon values). The infrared spectra of the copper complex taken by Y by Yu. Sh. Moshkovskiy and N. D. Kostrova, showed the complete absence of maxima in the range 800 - 2300 cm^{-1}. A "parquet" structure of the polymer according to the structural formula



Card 2/4

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

Some electrophysical properties ...

is concluded therefrom. The electrophysical properties of the films were checked by means of alternating current of 200 cps - 0.2 Mc/sec. The metal covered by the film was immersed in mercury so that the film formed the dielectric of a capacitor, the plates of which consisted of the metal and of mercury. Measurements were made at 10^{-5} mm Hg because the presence of air influenced the results. This effect needs further research. The specific conductivity σ, the film capacitance and its temperature dependence, duration of heating, and the method of metal-surface treatment were determined. The following data are given for films of iron obtained after 3 hr heating at 250°C in tetraethylene-cyanide vapor: film thickness $3 \cdot 10^{-6}$ cm; $= 3 \cdot 10^{-9}$ ohn^{-1} $\cdot$cm^{-1}, effective dielectric constant ε (at 3000 cps) =7. After further 3 hr of heating, σ increased to $3 \cdot 10^{-8}$ ohm^{-1}.cm^{-1}, and to 36. Increase of temperature from 250 to 450°C and heating for 10 hr produced the following values: $=5 \cdot 10^{-8}$ $-5 \cdot 10^{-6}$ ohn^{-1}.cm^{-1}, =70. The sign of the emf indicates that the film possesses p-type conductivity. $\log \sigma = f(10^3/T)$ is represented in Fig. 2. Measurements between -40 and +220°C yielded two linear sections.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

Some electrophysical properties ...

The first lies between -40 and +30°C and corresponds to an activation energy of from 0.0[illegible] to 0.12 ev, while the second (30 to 250°C) corresponds to an activation energy of from 0.21 to 0.28 ev. The function represented is similar to that obtained for semiconductors with impurity conductivity. R and ε as functions of the logarithm of the frequency between 400 cps and 0.2 Mc/sec were also measured. Results are shown in Fig. 3. It is noted that R and the film capacitance decrease with increasing voltage when a constant voltage is applied. When a direct current is conducted through an alcoholic solution of copper sulfate, metallic copper firmly adhering to the film is deposited on the polymer film formed on iron. The high values indicate that the polarization of conductive macromolecules could be in question. The authors are preparing a study on the complex dielectric constant at higher frequencies. There are 4 figures and 3 Soviet-bloc references.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences USSR). Institut elektrokhimii nauk SSSR (Institute of Electrochemistry, Academy of Sciences USSR)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

S/190/62/004/006/012/026
B110/B138

AUTHORS: Berlin, A. A., Matveyeva, N. G., Sherle, A. I., Kostrova, N. D.

TITLE: Polymers with conjugate bonds and heteroatoms in the conjugate chains. XXI. Polymeric complexes of tetraethylene cyanide

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 6, 1962, 860-868

TEXT: The preparation of polymers from tetraethylene cyanide and metals or metal salts was studied because: (1) tetraethylene cyanide has a planar structure, which permits conjugation via nitrile groups; (2) it shows four nitrile groups on two carbon atoms, and may form cyclic structures with and without metal atoms; (3) polymers obtained from it and the metals have so far been the only "inorganic" macromolecular compounds with directly bonded carbon, nitrogen and metals; and (4) because of the high vapor tension and heat stability of the monomer polymer complexes can be formed directly on the metal surface (Cu, Fe, Ni, Al etc). Black films which were insoluble in organic, alkaline, and

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Polymers with conjugate bonds...

acidic substances were obtained here after 5 - 20 hr at 150 - 450°C. The black, infusible, hygroscopic polymers obtained from tetraethylene cyanide and copper acetylacetonate (2:1) were insoluble in common organic substances, variously soluble in dimethyl formamide, pyridine, triethanolamine and concentrated H_2SO_4. The IR spectra of the films obtained from tetraethylene cyanide and copper showed a background at 700 - 1800 cm^{-1} which is typical for built-up or planar polymers with conjugate bonds. Polymers from copper acetylacetonate showed a wide asymmetric absorption band at 1700 - 1400cm^{-1}. For all polymers the absorption maximum lies at $\sim$2210 cm^{-1}, which corresponded to the C≡N bond. The intensive background confirmed the strongly branched system of the conjugate bonds. The degree of order depends on conditions of synthesis. Polymers obtained from copper acetylacetonate showed abnormal η/c dependence on c, similar to polyphenylenes and polyazophenylenes. The presence of neighboring C≡N groups points to the formation of energetically favorable, flat azoporphin structures with or without chelate-like bonded metals:

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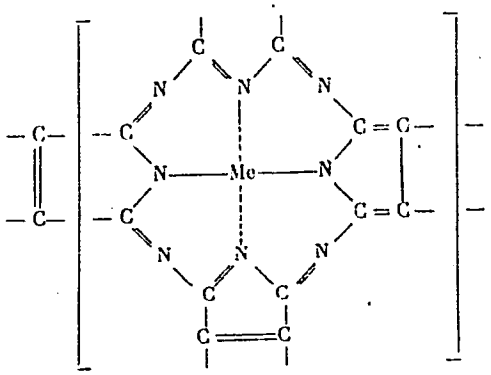
"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

S/190/62/004/006/012/026
B110/B138

Polymers with conjugate bonds...



Polymers obtained from metals had much higher heat stability than those obtained from copper acetylacetonate, since the acetylacetonate groups bonded to a metal of different valences initiate chain decomposition into peroxide radicals. The magnetic susceptibility depends on the flux density and temperature, and is higher ($\chi = 1.03 \cdot 10^{-5}$ CGSM) (200°C, 3500

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Polymers with conjugate bonds...

oersted) for a polymer obtained from acetylacetonate in absence of the solvent than for one obtained in the presence of cyclohexanone. The dependence of log σ on 1/T is linear for all polymers. The conductivities are 10^{-5} to 10^{-12} $ohm^{-1} \cdot cm^{-1}$, the activation energy E = 10 - 15 kcal/mole. There are 5 figures and 4 tables.

ASSOCIATION: Institut khimicheskoy fiziki AN SSSR (Institute of Chemical Physics AS USSR)

SUBMITTED: April 8, 1961

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

LEVINA, S.D.; LOBANOVA, K.P.; BERLIN, A.A.; SHERLE, A.I.

Electric properties of the systems consisting of tetracyanoethylene and metal powders. Dokl.AN SSSR 145 no.3:602-604 Jl '62. (MIRA 15:7)

1. Institut elektrokhimii AN SSSR. Predstavleno akademikom A.N.Frumkinym.

(Ethylene) (Metals)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

BERLIN, A.A. (Moskva); MATVEJEVA, N.G. [Matveyeva, N.G.] (Moskva); CERKASINA, L.G. [Cherkashina, L.G.] (Msokva); SERLE, A.I. [Sherle, A.I.] (Moskva).

Synthesis of polymers with heteroatoms and atoms of metals in a molecular chain and some of their properties. Chem prum 13 no.11:601-605 N'63.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

ACCESSION NR: AP4041172 S/0062/64/000/006/1132/1132

AUTHOR: Sherle, A. I.; Aseyev, Yu. G.; Frankevich, Ye. L.; Berlin, A. A.; Kasatochkin, V. I.

TITLE: Formation of a tetracyanoethylene chelate polymer

SOURCE: AN SSSR. Izv. Seriya khimicheskaya, no. 6, 1964, 1132

TOPIC TAGS: tetracyanoethylene, organic semiconductor, semiconducting polymer, chelate polymer, copper tetraacetylenide

ABSTRACT: Copper tetraacetylenide (I) has been prepared, identified, and its semiconducting properties studied. Salt I was obtained in acetonitrile and with lower yield in nitrobenzene. Identification was made by elemental analysis and UV and IR spectroscopy. At below 100C, electrical conductivity (δ) in vacuum was described by

$$\delta = 10^{-0.6} \exp(-5670/RT), \quad \delta_{300k} = 10^{-4.7} \text{ ohm}^{-1} \text{ cm}^{-1}.$$

At higher temperatures δ drops irreversibly and after heating to 150C becomes $\delta = 10^{0.8} \exp(11900/RT)$, $\delta_{300k} = 10^{-7.8}$ ohm^{-1} cm^{-1}.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

ACCESSION NR: AP4041172

If I is heated in the presence of tetracyanoethylene a new compound (II) is formed which unlike I is insoluble in acetonitrile and tetrahydrofuron. Compound II is highly soluble in H_2SO_4 and can be precipitated from it with water. IR spectroscopy suggests that II is a chelate polymer. The work was carried out at the Institute of Chemical Physics of the Academy of Sciences USSR.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences SSSR)

SUBMITTED: 24Mar64 ENCL: 00

SUB CODE: OC, SS NO REF SOV: 001 OTHER: 001

ATD PRESS: 3043

Card 2/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

ACCESSION NR: AP4039616 S/0076/64/038/005/1118/1125

AUTHOR: Boguslavskiy, L. I. (Moscow); Sherle, A. I. (Moscow); Berlin, A. A. (Moscow)

TITLE: Study of the electrophysical properties of films of polymeric complexes of metal tetracyanoethylene

SOURCE: Zhurnal fizicheskoy khimii, v. 38, no. 5, 1964, 1118-1125

TOPIC TAGS: tetracyanoethylene, metal tetracyanoethylene, tetracyanoethylene polymer, organic semiconductor, semiconducting polymer

ABSTRACT: A study has been made of the electrical properties of films of chelate polymers of tetracyanoethylene with various metals. Films 10^{-4}—10^{-5} m thick were prepared by treating strips of Cu, Mg, Fe, Ni, Ag, Pt, Al, or glass with tetracyanoethylene vapors at 150—450C and 10^{-4}—10^{-5} mm Hg. Electrical measurements were carried out in the frequency range 20 cycles/sec—200 kcycles/sec with simultaneous application of d-c voltage. Electrical resistivity and its temperature dependence, activation energy for conduction, and dielectric constant were determined. From changes in these parameters

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

SHERLE, A.I.; ASEYEV, Yu.G.; FRANKEVICH, Ye.L.; BERLIN, A.A.; KASATOCHKIN, V.I.

Formation of a polymeric chelate compound of tetracyanoethylene.
Izv. AN SSSR. Ser. khim. no.6:1132 Je '64.
(MIRA 17:11)

1. Institut khimicheskoy fiziki AN SSSR.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

L 24184-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 RPL RM

ACCESSION NR: AP5003830 S/0190/65/007/001/0088/0093

AUTHOR: Berlin, A. A.; Sherle, A. I.; Belova, G. V.; Boreyev, O. M.

TITLE: Synthesis and investigation of polymeric complexes formed in the reaction of tetracyanoethylene with powdered metals

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 1, 1965, 88-93

TOPIC TAGS: coordination polymer , polytetracyanoethylene, tetracyanoethylene

ABSTRACT: Communication 58 of the series "Polymers with a Conjugated System" reports the preparation of copper, iron, and magnesium tetracyanoethylene (TCE) coordination polymers and metal-free polytetracyanoethylene. They were made by reacting TCE with copper, iron, magnesium, or bronze in a 2/1 molar ratio in nitrobenzene in a stream of argon at 210C for 10 hr. All the coordination polymers obtained were infusible black powders, insoluble in the common organic solvents but soluble in concd H_2SO_4. The copper-containing polymer was stable in H_2SO_4, but the magnesium-containing polymer lost the metal to form

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

L 21184-65

ACCESSION NR: AP5003830

a metal-free polytetracyanoethylene which behaves like polymerization-prepared polytetracyanoethylene. Thermal-oxidative degradation curves were typical of conjugated polymers. A porphyrazine structure was assigned to the polymers. Orig. art. has: 3 figures, 1 table, and 3 formulas.

[SM]

ASSOCIATION: Institut khimicheskoy fiziki AN SSSR (Institute of Chemical Physics, AN SSSR)

SUBMITTED: 11Mar64 ENCL: 00 SUB CODE: OC, GC

NO REF SOV: 006 OTHER: 003 ATD PRESS: 3175

Card 2/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

BOGUSLAVSKIY, L.I.; SHERLE, A.I.; BERLIN, A.A.

Electrophysical properties of films of polymeric complexes of tetracyanoethylene with a metal. Zhur. fiz. khim. 38 no.5:1118-1125 My '64. (MIRA 18:12)

1. Institut elektrokhimii AN SSSR i Institut khimicheskoy fiziki AN SSSR. Submitted March 18, 1963.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

SIERLE, D.

Singl. spout pouring of cast iron and slag. Metallurg 10 no.4: 6-7 Ap '65. (MIRA 18:7)

1. Kommunarskiy metallurgicheskiy zavod.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

AVLOYEV, V.I.; SHKADE, D.P.

Two suggestions for plants manufacturing compressors.
Mashinostroitel' no. 2:46 F '61. (MIRA 14:2)
(Compressors--Technological innovations)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

DRYAPIK, Ye.P.; ZHILIN, L.P., inzh.; SHERLE, D.P., inzh.

Reorganization of the Kommunar Metallurgical Plant. Stal' 22 no.10:865-870 O'62. (MIRA 15:10)

1. Glavnyy inzh. Kommunarskogo metallurgicheskogo zavoda (for Dryapik).

(Kommunar (Donetsk Province)—Iron and steel plants)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

SHERLE, D. P., inzh.

Seminar on the study of progressive practices in the making of ferromanganese. Met. i gornorud. prom. no.1:80-81 Ja-F '63. (MIRA 16:4)

1. Kommunarskiy metallurgicheskiy zavod.

(Ferromanganese—Metallurgy)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

SHERLE, Z.P.

Constructive initiative on the part of Gorkiy harbor efficiency promoters and inventors. Mech. transp. 16 no.6:4-5 Je '57. (MLRA 10:8)

1. Glavnyy inzhener Gor'kovskogo porta.
(Gorkiy--Harbors) (Loading and unloading)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

SHERLE, Z.

Mechanization of loading and unloading operations at the Gorkiy docks. Rech. transp. 19 no. 2:15 F '60. (MIRA 14:5)

1. Glavnyy inzh.Gor'kovskogo porta.
(Gorkiy Harbor--Cargo handling) (Cranes, derricks, etc.)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

SHERLE, Z.

Improve the design of floating cranes. Mech.transp. 19 no.9: 40 S '60. (MIRA 13:9)

1. Glavnyy inzhener Gor'kovskogo porta.
(Floating cranes)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

SHERLE, Z., dotsent; ZAKHARTSEV, V., inzh.; GLADSHEV, A., inzh.

Transportation of phosphate meal. Rech. transp. 24 no.7: 16-18 '65. (MIRA 18:8)

1. Gor'kovskiy institut inzhenerov vodnogo transporta (for Gladyshev).

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

SHERLE, Z.

New machines for operation in holds. Rech.transp. 21 no.7:48-49 Jl '62. (MIRA 15:8)

1. Glavnyy inzh. Gor'kovskogo porta.
(Cargo handling—Equipment and supplies)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

NYURKIN, I., inzh.; SHERLE, Z., inzh.

"Harbor and deck load-hoisting machinery" by A.I. Dukel'skii. Reviewed by I. Niurkin, Z. Sherle. Rech. tránsp. 21 no.12:55-56 D '62. (MIRA 15:12)

(Cranes, derricks, etc.)
(Deck machinery)
(Dukel'skii, A.I.)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

COUNTRY : USSR
CATEGORY : Cultivated Plants. General Problems.

ABS. JOUR. : Ref Zhur -Biologiya, No. 6, 1959, No. 26135

AUTHOR : Sharlin, I.
INST. : Not given
TITLE : Forest Shelterbelts for Retaining Field Moisture.

ORIG. PUB. : Peredov. opyt. v s.-kh. Kazakhstana, 1958, No. 4, 21-23

ABSTRACT : Kolkhoz and experiment station experience shows that in the steppe areas the grain yields from sheltered fields are higher by 1½-6 cwt/ha than on the open fields. The greatest yield increase is found in the direct vicinity of the forest strip up to a distance of 50 m from it. Therefore, narrow strips (3-6 rows) should be placed not far from each other. Wider strips (10-12 rows) should be used where danger from wind erosion

CARD : 1/3

5

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

[illegible] : Cultivated Plants.

ABS. JOUR. : Ref Zhur-Biologiya, No. [illegible], 1959, No. [illegible]0285

Author :
Inst. :
Title :

Orig. Pub. :

Abstract : followed by deeper plowing up to 50 cm. The plantings are cared for by cultivation between rows.-- E.I. Karasenok

Card : 3/3

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SHERLIN, E.G.

Diagnostic significance of the activity of aldolase in the cerebrospinal fluid in acute neuroinfections. Zhur. nevr. i. psikh. 65 no.3:371-375 '65. (MIRA 18:4)

1. Meningitnoye otdeleniye Gorodskoy infektsionnoy bol'nitsy (glavnyy vrach Ye.P. Zhelandovskaya), Tallin.

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ZEYDE, O.A.; SHERLIN, S.M.; BRUKER, A.B.

Interaction of n-halophenylhydrazines with arsenic acid. Zhur.ob. khim. 28 no.9:2404-2407 S '58. (MIRA 11:11)
(Arsenic acid) (Hydrazine)

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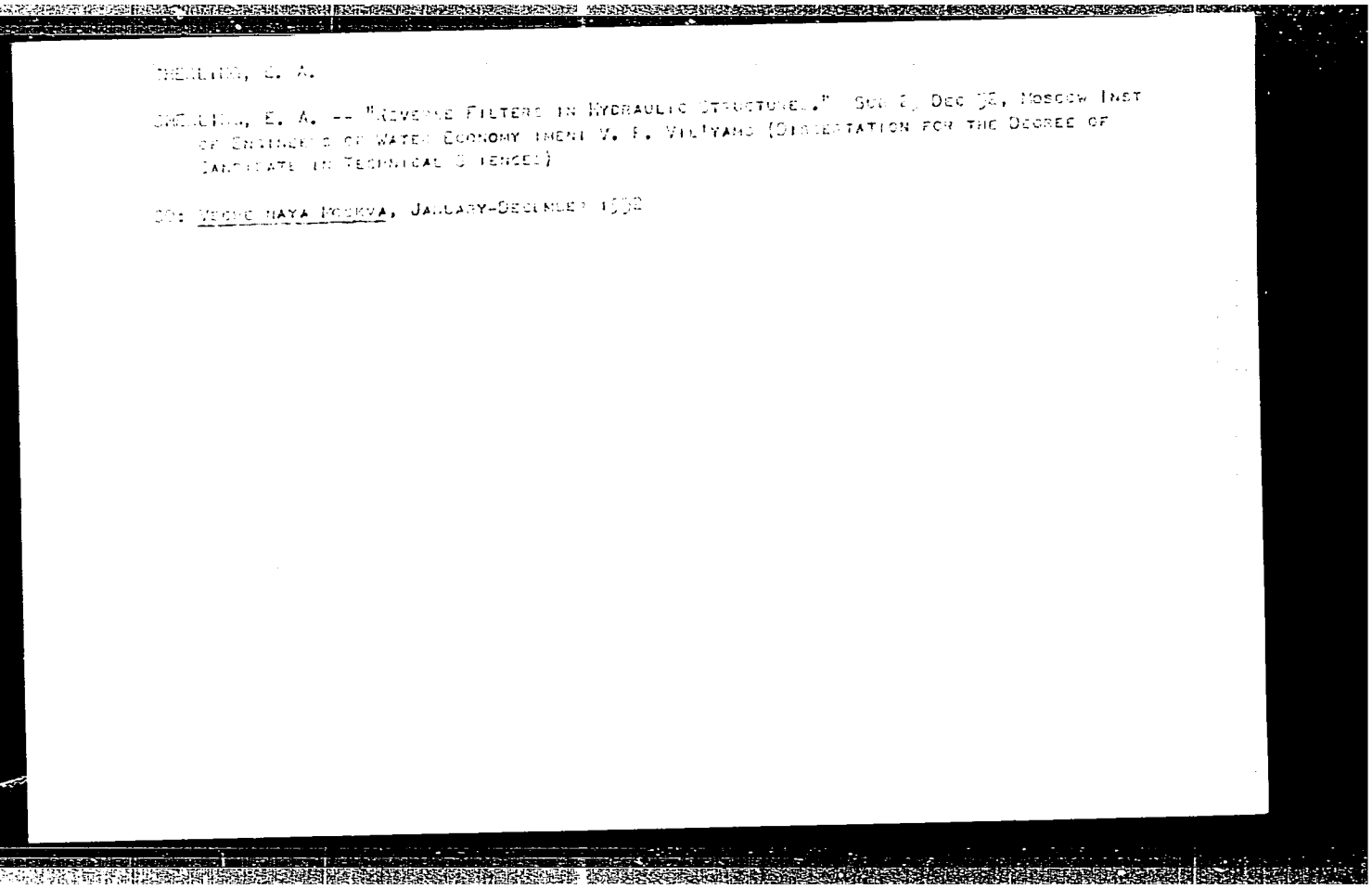

[illegible], E. A.

[illegible], E. A. -- "Reverse Filters in Hydraulic Structures." Sci. S., Dec 52, Moscow Inst of Engineers of Water Economy imeni V. R. Vil'yams (Dissertation for the Degree of Candidate in Technical Sciences)

SO: Vechernaya Moskva, January-December 1952

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

SHERMAN, A.

Parquet slabs made of wood wastes. Sel'. stroi. no.5:13-14 My '62. (MIRA 15:7)

1. Glavnyy tekhnolog tresta Saratovtselinstroy.
(Parquet floors)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

SYROVATKIN, A.; SHERMAN, A.; GOLOMAN, S., red.; MUKHANOV, F., red.

[Work practices of the "Saratovtselinstroi" Trust in the industrialization of rural construction] Opyt raboty tresta "Saratovtselinstroi" po industrializatsii sel'skogo stroitel'stva. Moskva, Trest "Orgosovkhozstroi", 1963. 14 p. (MIRA 17:4)

1. Russia (1917- R.S.F.S.R.) Glavnoye upravleniye po delam sel'skogo i kolkhoznogo stroitel'stva. 2. Nachal'nik otdela tresta "Orgsovkhozstroy" (for Syrovatkin). 3. Glavnyy tekhnolog tresta "Saratovtselinstroy" (for Sherman).

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

ACC NR: AP6033557 SOURCE CODE: UR/0181/66/008/010/2965/2969

AUTHOR: Smolenskiy, G. A.; Yudin, V. M.; Syrnikov, P. P.; Sherman, A. B.

ORG: Institute of Semiconductors, AN SSSR, Leningrad (Institut poluprovodnikov AN SSSR)

TITLE: The transparent hexagonal ferrimagnet $RbNiF_3$

SOURCE: Fizika tverdogo tela, v. 8, no. 10, 1966, 2965-2969

TOPIC TAGS: rubidium compound, magnetic property, magnetic susceptibility, magnetic anisotropy, Curie point, magnetic structure

ABSTRACT: The purpose of the investigation was to study the magnetic properties of single-crystal $RbNiF_3$, both above and below the magnetic-transition temperature, in view of the fact that they were hitherto investigated only in the paramagnetic region in single-crystal form. Transparent $RbNiF_3$ crystals with low dielectric losses can be of interest for modulation of light beams in microwave devices at low temperatures. The single crystals were obtained by exchange decomposition at high temperatures. The magnetic properties were investigated with a magnetic balance by the Faraday method in fields from 2 - 14 kOe. The apparatus was described earlier (FTT v. 6, 3668, 1964) and was modified to accommodate anisotropic crystals. The reciprocal magnetic susceptibility was measured as a function of the temperature and the magnetic-moment components were determined as functions of the field intensity at different temperatures. The results confirm that $RbNiF_3$ is a ferrimagnet of the ferroxplan type with a Curie

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ACC NR: AP6033557

temperature of 145K. The magnetic structure and the magnetic anisotropy of $RbNiF_3$ exhibit a complicated variation which can be interpreted from the point of view of the assumption that as the temperature is increased the magnetic structure changes from one with an easy-magnetization plan to one having a cone of easy-magentization directions. Orig. art. has: 6 figures and 5 formulas.

SUB CODE: 20/ SUBM DATE: 03Mar66/ ORIG REF: 002/ OTH REF: 005

Card 2/2

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

L 26063-66 EWT(1)/EWT(m)/T/EWP(w)/EWP(t) IJP(c) JD/HW/JG

ACC NR: AP6015808 SOURCE CODE: UR/0386/66/003/010/0416/0419

AUTHOR: Smolenskiy, G. A.; Yudin, V. M.; Syrnikov, P. P.; Sherman, A. B.

ORG: Institute of Semiconductors, Academy of Sciences SSSR (Institut poluprovodnikov Akademii nauk SSSR)

TITLE: The transparent hexagonal ferrimagnet $RbNiF_3$

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 3, no. 10, 1966, 416-419

TOPIC TAGS: antiferromagnetism, magnetic moment, saturation magnetization, magnetic anisotropy, rubidium compound, Curie point

ABSTRACT: Since investigations of the magnetic properties of $RbNiF_3$ have hitherto been confined to the paramagnetic regions and to polycrystals, the authors have investigated the magnetic properties of single-crystal $RbNiF_3$, using a magnetic balance and the Faraday method, in fields from 2 to 14 koe, both above and below the magnetic-transition temperature. The single crystals have been obtained by an exchange decomposition reaction at 960C. They are transparent in visible light, and have the interesting feature that in the temperature interval from 77 to 900K they change their color continuously from bright green to pink. The resistivity at room temperature exceeds 10^{11} ohm-cm, and the dielectric constant is of the order 5--6. Large and perfect crystals (15 x 5 x 5 mm) without cleavage planes can be obtained with relative ease. The dependence of the paramagnetic susceptibility on the temperature has a

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ACC NR: AP6015808

form characteristic of ferrimagnets. The magnetic ordering sets in at 145K. Plots were obtained of the magnetic moment at 77K against the field intensity and against the temperature in the direction along the hexagonal axis and perpendicular to it. From these plots it is possible to estimate the field of negative uniaxial anisotropy at 77K (~25 koe) and the sum of the magnetic anisotropy constants ($K_1 + K_2 \simeq -0.4 \times 10^6$ erg/cm^3). The results are interpreted from the point of view of the collinear model of ferrimagnetism. The value obtained on this basis for the specific magnetization is 18 G-cm^3/deg. Although the obtained value of the saturation magnetization per formula unit at 0°K is found to be somewhat lower than the theoretical value (~2/3 Bohr magnetons), the difference is attributed to the high temperature of the experiment (more than half the Curie temperature). The results show that on approaching the Curie point the anisotropy constants decrease rapidly, and this gives rise to a spontaneous magnetic moment. It is concluded on the basis of all the data that $RbNiF_3$ is a transparent ferrimagnet of the ferroxplan type. Orig. art. has: 2 figures.

SUB CODE: 20/ SUBM DATE: 25Mar66/ ORIG REF: 001/ OTH REF: 003

Card 2/2 .cl

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

S/128/60/000/010/008/016/XX
A033/A133

AUTHORS: Gel'perin, N. V.; Zvolinskaya, V. V.; Parfenov, V. S., and Sherman, A. D.

TITLE: Technological process of casting crankshafts for the Д8-30 (DV-30) engine at the Vladimorovskiy traktornyy zavod (Vladimirov Tractor Plant)

PERIODICAL: Liteynoye proizvodstvo, no. 10, 1960, 16 - 17

TEXT: Based on the experience of the Khar'kov "Serp i molot" Plant, the Vladimirov Tractor Plant started the casting of crankshafts for the DV-30 engine. The authors enumerate the deficiencies occurring during the casting of the crankshaft for the СМД-7 (SMD-7) engine at the "Serp i molot" Plant and point out that the elimination of black spots by increasing the machining tolerances is not expedient; therefore, it is necessary to prevent the origination of black spots which can be attained by the desulfurization of the cast iron, bringing the S-content down to 0.008 - 0.005%. This is possible if the cast iron is smelted in a basic electric furnace. Attempts were made to eliminate the technical difficulties connected with the

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Technological process of casting crankshafts...

production of magnesium-modified cast iron by using other modifiers, like cerium, tellurium, calcium, strontium, lithium, etc. Tests proved cerium and foundry alloys on the base of cerium to be the most suitable modifiers. In comparison with magnesium, cerium offers the following advantages: no metal ejection during modification; the assimilability of cerium amounts to not less than 30%; lower sensitivity of the cast iron to demodifiers; insignificant cast iron temperature drop during the modification process (between 20 and 40°C); uniform distribution of sulfur over the casting and absence of black spots on its surface. In order to maintain a constant chemical cast iron composition during the investigations basic cast iron of the following chemical composition (in %) was smelted in a 3-ton acid electric furnace: 3.5 - 3.8 C; 2.0 - 2.2 Si; 0.8 - 1.0 Mn; not more than 0.04 S. Then this cast iron was remelted in a 50-kg capacity acid induction furnace. The metal was heated to 1,480 - 1,450°C, the modifiers (composition: 5 - 7% Mg, 10% Fe, 40 - 50% Ce, the rest rare earths) amounting to 0.4 - 0.35% of the liquid metal weight was put on the ladle bottom. To remove cementite formations and increase the mechanical properties, the cast iron was subjected to additional modification by 0.3 - 0.4% Cu (Si) 75 ferrosilicium. After two minutes holding in the ladle the metal was poured into the crankshaft

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shell molds. Besides, specimens were cast to determine the macro- and microstructure and the mechanical properties. Table 1 shows the results obtained. The sand-resin mixture was prepared in a mixer of NIILITMASh design, model 821, the shell mold was made on a model 830 machine of NIILITMASh design. The cast crankshaft structure contained ledeburite cementite. The crankshafts were annealed as to the following conditions: holding at 950°C for 2 - 5 hours, cooling in the furnace to 630°C, holding at 630°C for 1 hour, cooling in the furnace to 450°C, further cooling in the air. In comparison to die-forged crankshafts 22 kg metal were saved with each cast crankshaft. The economic effect amounts to 15% of the crankshaft cost price. There are 4 figures, 2 tables and 4 Soviet-bloc references.

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LAKEDEMONSKIY, A.V., kand.tekhn.nauk; PLENTSOV, G.I., kand.tekhn.nauk;
SHERMAN, A.D.; ABRAMENKO, Yu.Ye.

Characteristics of the wear of cylinders of motor-vehicle engines.
Avt.prom. 31 no.4:14-17 Ap '65. (MIRA 18:5)

1. Moskovskiy avtozavod imeni Likhacheva.

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Sherman, A. Sh.

ZAKIN, M.M.; ZUDINA, M.A.; TUMASOVA, G.M.; FEL'MAN, A.N.; SHERMAN, A.Sh.

Clinical and epidemiological characteristics of bacillus carriers [with summary in French]. Probl.tub. 35 no.4:10-16 '57. (MLRA 10:8)

1. Iz protivotuberkuleznogo dispansera No.11 Shcherbakovskogo rayona Moskvy (glavnyy vrach G.V.Kotsubey, zam. glavnogo vracha po meditsinskoy chasti M.M.Zakin)

(TUBERCULOSIS
carriers, clin. & epidemiol. characteristics (Rus))

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

SHERMAN, A.Sh.

Differential diagnosis of sarcoidosis and tuberculosis [with summary in French]. Probl.tub. 36 no.3:92-93 '58 (MIRA 11:5)

1. Iz protivotuberkuleznogo dispansera No.11 Shcherbakovskogo rayona Moskvy (glavnyy vrach G.V. Kotsubey, zam. glavnogo vracha po meditsinskoy chasti M.M. Zakin).
(SARCOIDOSIS, differ.diag.
pulm., from pulm. tuberc. (Rus))
(TUBERCULOSIS, PULMONARY, differ. diag.
pulm. sarcoidosis (Rus))

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

SHERMAN, A.Sh. (Moskva)

Causes of the development of chronic fibrous-cavernoys pulmonary tuberculosis. Klin.med. 37 no.12:82-88 D '59. (MIRA 13:4)

1. Iz protivotuberkuleznogo dispansera No.11 Moskvy (glavnyy vrach T.V. Kotsubey).
(TUBERCULOSIS)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

SHERMAN, A.Sh. (Moskva)

Clinical and radiographic characteristics of patients with chronic fibrocavernous tuberculosis. Kaz.med.zhur. 40 no.3:82-83 My-Je '59. (MIRA 12:11)
(TUBERCULOSIS)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

SHERMAN, A.Sh. (Mosleva)

Some problems in the epidemiology of chronic fibrous-cavernous pulmonary tuberculosis. Kaz. med. zhur. no.6:83-84 N-D '60.
(TUBERCULOSIS)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

SMULEVICH, V.B.; SHERMAN, A.Sh.

Experience in bronchography in an antituberculosis clinic.
Probl.tub. 39 no.2:98-100 '61. (MIRA 14:3)

1. Iz kafedry tuberkuleza (zav. - prof. A.Ye. Rabukhin) TSentral'nogo instituta usovershenstvovaniya vrachey (dir. V.P. Lebedeva) i protivotuberkuleznogo dispansera No.11 (glavnyy vrach G.V. Kotsubey, zamestitel' po meditsinskoy chasti M.M. Zakin)
(TUBERCULOSIS) (BRONCHI--RADIOGRAPHY)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

SHERMAN, A. Sh.

Tuberculosis incidence among persons coming in contact with patients expectorating Mycobacterium tuberculosis resistant to drugs. Probl. tuberk. 41 no.4:3-6 '63 (MIRA 17:2)

1. Iz protivotuberkuleznogo dispansera No.11, Moskva.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

BULANOVA, S.I.; SMULEVICH, V.B.; SHERMAN, A.Sh.

Role of a dispensary for tuberculosis control in the detection of lung cancer. Vop. onk. 11 no.3:85-89 '65.
(MIRA 18:6)

1. Iz protivotuberkuleznogo dispansera No.11 Moskvy (glavnyy vrach - kand. med. nauk A.Sh. Sherman) i 1-go khirurgicheskogo otdeleniya (zav. - doktor med. nauk B.Ye. Peterson) Instituta eksperimental'noy i klinicheskoy onkologii AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR prof. N.N. Blokhin).

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

BABELYAN, V.B.; VINNICHENKO, N.G., kand. ekon. nauk; GNEDASH, G.N.; GRIGOR'YEV, A.N.; DANILOV, N.K.; IVANOV, A.P.; IVLIYEV, Ivan Vasil'yevich; POTAPOV, I.A.; TRUBIKHIN, M.G., kand.ekon. nauk; TUKHOVITSKAYA, L.K., inzh.; TYVANCHUK, D.P., inzh.; SHERMAN, A.Ya.; SHCHERBAKOV, P.D., inzh.; EVENTOV, G.S.; KRISHTAL', L.I., red.; MAKUNI, Ye.V., tekhn. red.

[Financing in railway transportation; manual] Finansirovanie na zheleznodorozhnom transporte; spravochnik. Pod obshchei red. I.V. Ivlieva. Moskva, Vses. izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniia, 1962. 422 p. (MIRA 15:4)
(Railroads—Finance)

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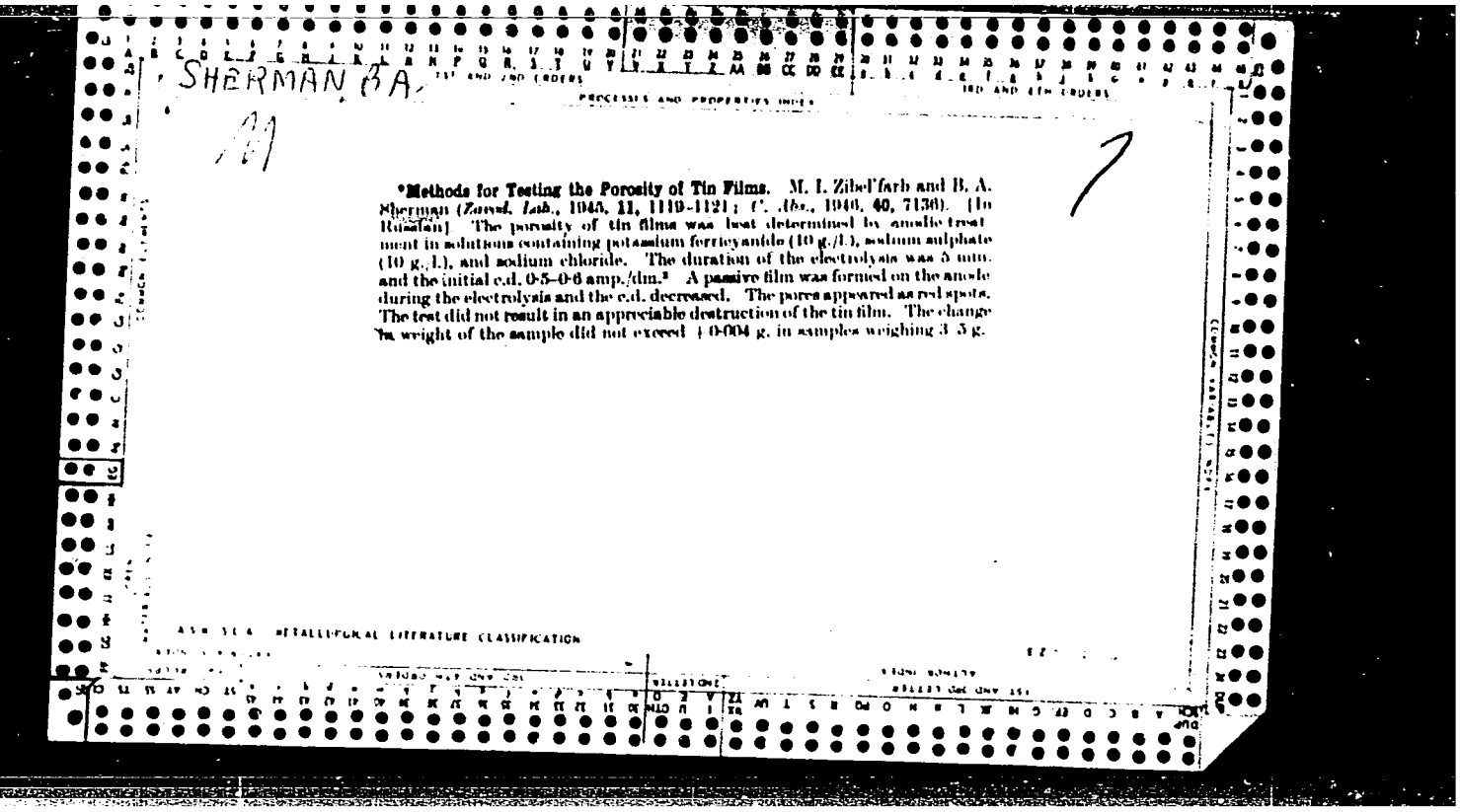

SHERMAN, B.A.

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***Methods for Testing the Porosity of Tin Films.** M. I. Zilel'farb and B. A. Sherman (*Zavod. Lab.*, 1945, **11**, 1119–1121; *C. Abs.*, 1946, **40**, 7136). [In Russian] The porosity of tin films was best determined by anodic treatment in solutions containing potassium ferricyanide (10 g./l.), sodium sulphate (10 g./l.), and sodium chloride. The duration of the electrolysis was 5 min. and the initial c.d. 0·5–0·6 amp./dm.^{2} A passive film was formed on the anode during the electrolysis and the c.d. decreased. The pores appeared as red spots. The test did not result in an appreciable destruction of the tin film. The change in weight of the sample did not exceed ± 0·004 g. in samples weighing 3–5 g.

ASM SLA METALLURGICAL LITERATURE CLASSIFICATION

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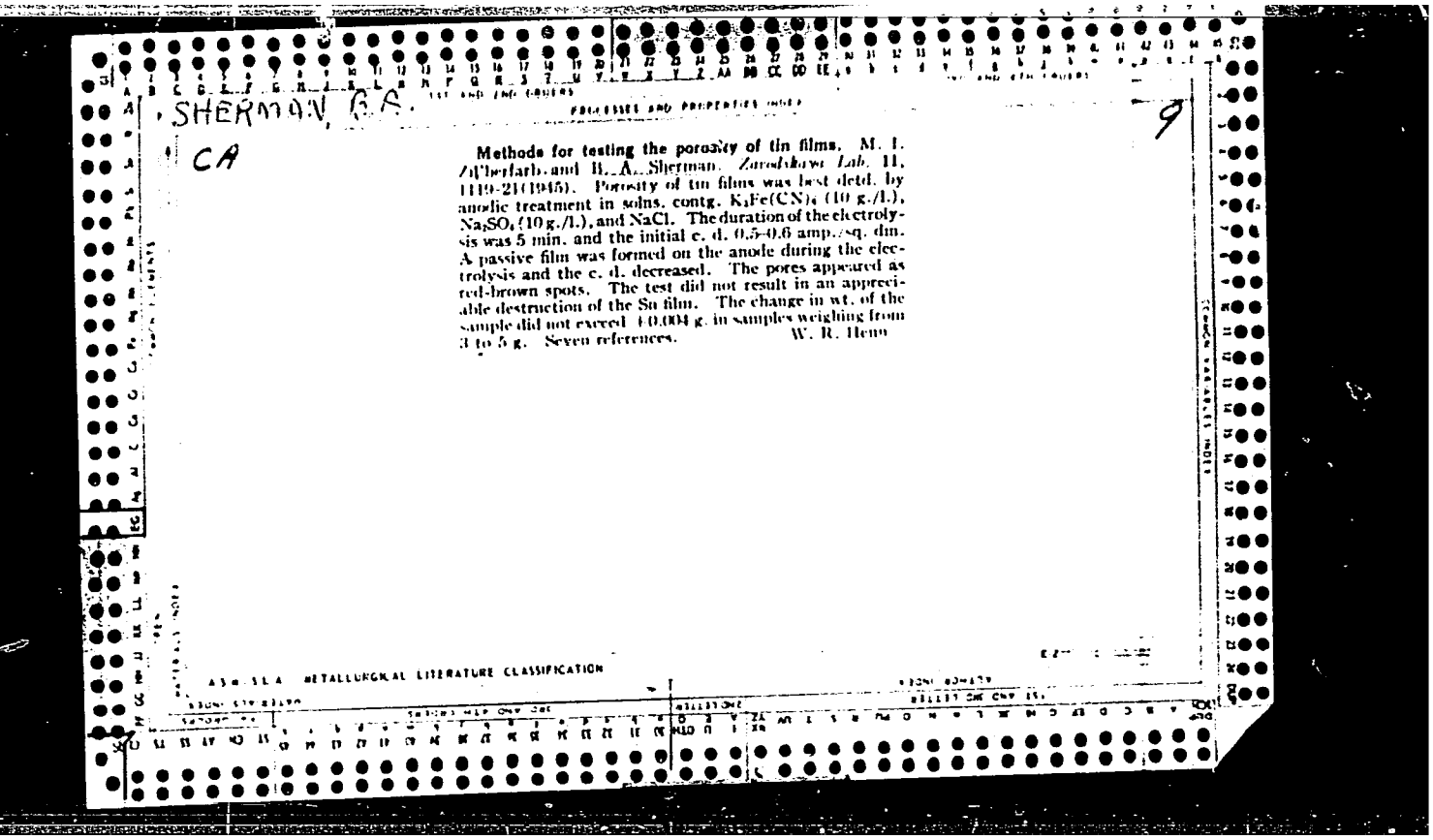

SHERMAN, B.A.

CA

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Methods for testing the porosity of tin films. M. I. Al'berlarb and B. A. Sherman. *Zavodskaya Lab.* 11, 1119-21(1945). Porosity of tin films was best detd. by anodic treatment in solns. contg. $K_3Fe(CN)_6$ (10 g./l.), Na_2SO_4 (10 g./l.), and NaCl. The duration of the electrolysis was 5 min. and the initial c. d. 0.5-0.6 amp./sq. dm. A passive film was formed on the anode during the electrolysis and the c. d. decreased. The pores appeared as red-brown spots. The test did not result in an appreciable destruction of the Sn film. The change in wt. of the sample did not exceed ±0.004 g. in samples weighing from 3 to 5 g. Seven references. W. R. Henn

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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SHERMAN, B.P.

BEREGOVSKIY, V.Ye.; VASILENKO, M.I.; VELIER, R.L.; VERBLOVSKIY, A.M.; VERNER, B.F.; VOYDALOVSKAYA, Ye.N.; VOL'SKIY, A.N.; GLAZKOVSKIY, A.A.; GRANOVSKIY, B.L.; GREYVER, N.S.; GUDIMA, N.V.; DOLGOPOLOVA, V.I.; KARCHEVSKIY, V.A.; KOVACHEVA, Ye.B.; KUDRYAVTSEV, P.S.; LEBEDEV, A.K.; LISOVSKIY, D.I.; LIKHNITSKAYA, Z.P.; MATVEYEV, N.I.; MEL'NITSKIY, A.N.; MIRONOV, A.A.; MIKHEYEVA, A.A.; MURACH, N.N.; OKUN', A.B.; OL'KHOV, N.P.; OSIPOVA, T.B.; PAVLOV, V.P.; ROTINYAN, A.L.; SAZHIN, N.P.; SEVRYUKOV, N.N.; SIDOROV, P.M.; SOBOL', S.I.; KHEYFETS, V.L.; TSEYNER, V.M.; SHAKHNAZAROV, A.K.; SHEYN, Ya.P.; SHEREMET'YEV, S.D.; SHERMAN, B.P.; SHISHKIN, N.N.; SHLOPOV, A.P.

Georgii Ivanovich Blinov. TSvet.met. 28 no.6:62 N-D '55. (MIRA 10:11)

(Blinov, Georgii Ivanovich, 1911-1955)

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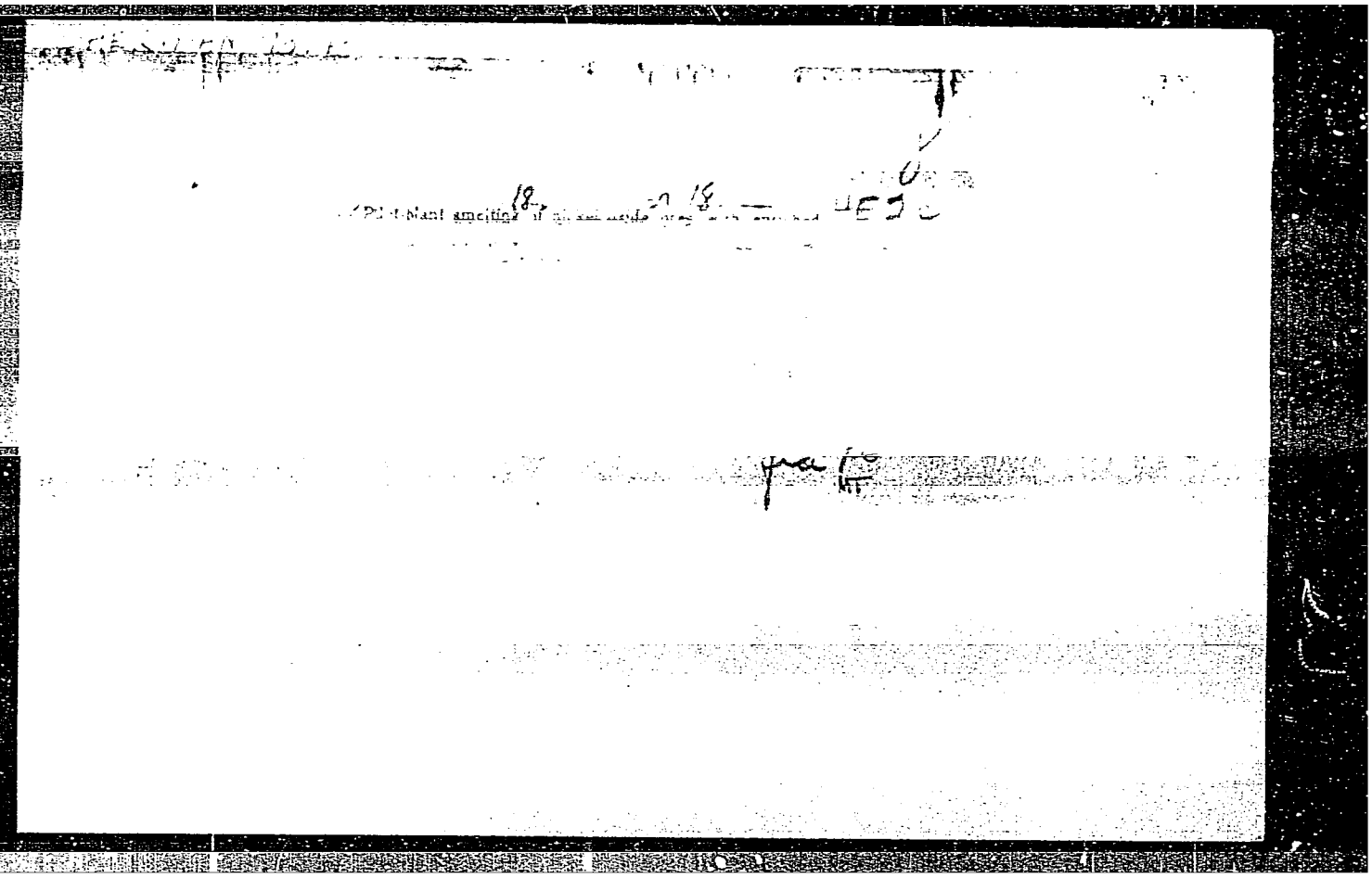

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REZNIK, I.D.; SHERMAN, B.P.; SOKIN, B.G.

Starting the operation of a KT-100 oxygen plant in the Southern Urals Nickel Combine. TSvet. met. 29 no.10:34-38 O '56. (MLRA 9:12)

1. Gintsvetmet Kombinat Yuzhuralinkel'.
(Ural Mountain region--Nickel--Metallurgy)
(Oxygen)

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SOV/136-59-7-6/20

AUTHORS: Reznik,I.D., Yevdokimenko, A.I., Zaberezhnyy, I.I., Sherman, B.P., Kudrin, A.N., Serpov, V.I., Petrov, L.K.

TITLE: Shaft Smelting of Sintered Oxidized Nickel Ores With Hot Blast

PERIODICAL: Tsvetnnye metally, 1959, Nr 7, pp 30-36 (USSR)

ABSTRACT: The use of hot blast in shaft smelting in non-ferrous metallurgy is comparatively recent. The authors describe production experiments made by the kombinat (combine) Yuzhuralnikel' together with Gintsvetmet and Gipronikel'. Aside from the authors the following participated in the work. From Yuzhuralnikel': S. Ye. Lyumkis, M.M. Zolkina, A.G. Ushakov, V.T. Gritskova, U.D. Shaymukhambetov, N.V. Sukhin, I.S. Firyago, V.I. Mannanikov; from Gintsvetmet: A.S. Buntovnikov, M.S. Kruglyakova, Yu. N. Skvortsov, L.I. Yevdokimova; from Gipronikel': N.P. Malyk, Ye. M. Simonov, N.N. Sin'ko, A.N. Derevnin. The furnace used had a cross section in the tuyere zone of 7.2 m^2 and a width of 2m; stack height was 8 m and the slit tuyeres dipped at 15°.

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Shaft Smelting of Sintered Oxidized Nickel Ores With Hot Blast

Blast heating was provided by a specially designed oil-fired heater. Suitable instrumentation was provided. The experiments were conducted as during a previous investigation (Ref 4) on the same furnace; a parallel investigation of stack processes was carried out (Ref 5). Blast temperatures of 190, 300 and 400°C were used, the furnace working smoothly (Fig 1 shows the blast-pressure chart) and without difficulties. Compared with cold-blast operation on the same furnace a coke saving of 28.9% was obtained by blast heating to 300°C; allowing for the oil used in the blast heater the economy was 15.2% by weight, 11.5% if the difference in calorific value of oil and coke is taken into account. Fig 2 shows that top gas composition is best at 300°C. This temperature is also close to the optimum for fuel economy (Fig 3) and smelting and coke burning rates (Fig 4). The authors conclude that the tests have shown that blast heating should be introduced into practice. They recommend that oil- or gas-fired blast heaters should be designed, and that the development of methods for blast heating using the heat

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Shaft Smelting of Sintered Oxidized Nickel Ores With Hot Blast

contents of slags and top gases should be accelerated. There are 4 figures, 2 tables and 5 references, 4 of which are Soviet and 1 French.

ASSOCIATION: Gintsvetmet (I. D. Reznik, A. I. Yevdokimenko, I.I. Zaberezhnyy); Kombinat (Combine) Yuzhurnalnikel' (B. P. Sherman, A. N. Kudrin, V. I. Serpov); Gipronikel' (L. K. Petrov)

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BOCHKAREV, L.M.; RAGULINA, A.T.; SERPOV, V.I.; CHERMAK, L.L.; SHERMAN, B.P.

Pilot plant testing of the smelting of oxidized nickel ores with a blow containing up to 45 percent oxygen. TSvet. met. 33 no.7:23-28 Jl '60. (MIRA 13:7)
(Nickel--Metallurgy) (Oxygen--Industrial applications)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

S/194/61/000/012/010/097
D209/D303

AUTHORS: Sevast'yanov, V. V., Likhterov, I. M., Petukhov, V.N., Sherman, B. P., Fedotov, V. K. and Golovach, V. K.

TITLE: Introducing level-meters to nonferrous metallurgy plants

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 12, 1961, 31, abstract 12A229 (Radioakt. izotopy i yadern. izlucheniya v nar. kh-ve SSSR. V. 3, M., Gostoptekhizdat, 1961, 162-164)

TEXT: Described is a high sensitivity positional level-meter (L) type УРП-1013 (URP-1013) for signalling attainment of the degree of separation between two substances of different densities without direct contact with the system under investigation. The separation is determined by recording the change of intensity of γ-radiation passing through the mixture. The instrument consists of a power unit, four radiation sources and four radiation receivers. Various installation methods of L are described, depending on the proper-

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YEVDOKIMENKO, A.I.; ZABEREZHNYY, I.I.; RAFALOVICH, I.M.; REZNIK, I.D.;
Prinimali uchastiye: SHERMAN, B.P.; KUDRIN, A.N.; GALITSKIY, L.M.;
SERPOV, V.I.; VOROB'YEV, V.A.; STEPANOV, A.S.; RODIONOVA, N.M.;
BUNTOVNIKOV, A.S.; YEVDOKIMOVA, L.Ye.

Air blast preheating for shaft furnaces. Tsvet. met. 33 no.10:12-20 O '60. (MIRA 13:10)

1. Gosudarstvennyy institut po tsvetnym metallam (for Yevdokimenko, Zaberezhnyy, Rafalovich, Reznik, Rodionova, Buntovnikov, Yevdokimova). 2. Yuzhno-Ural'skiy nikelevyy zavod (for Sherman, Kudrin, Galitskiy, Serpov, Vorob'yev, Stepanov).
(Air preheaters)
(Metallurgical furnaces--Equipment and supplies)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

SHEFMAN, D.

People of Kharkov in the lead. Kryl. rod. 16 no.11:11 N '65. (MIRA 18:12)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

SHERMAN, D.

Preventing accidents in parachuting. Kryl. rod. 13 no.10:22 O '62. (MIRA 15:10)

1. Nachal'nik meditsinskoy sluzhby Kiyevskogo aerokluba.

(Parachuting—Safety measures)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

24750V

45641

S/126/63/015/001/029/029
E073/E151

AUTHORS: Tyubchenko, A.P., Sherman, D.G., and Kuz'minov, G.S.

TITLE: Effect of cerium content of iron on self-diffusion

PERIODICAL: Fizika metallov i metallovedeniye, v.15, no.1, 1963, 158-160

TEXT: The authors have already shown that Ce additions of up to 0.5% have no effect on the ratio of the intercrystalline (D_{Boun}) and transcrystalline (D_{Body}) self-diffusion coefficients of Fe. Further investigations were carried out on pure Armco iron, vacuum induction melted, into which Ce was added, and the ratio K_{Fe}, which equals

$$d(D_{Boun} \times D_{Body}^{-1/2})$$

was determined using the isotope Fe_{59}. It was found that Ce additions of up to 0.52% had little effect on the self-diffusion ratio, and that at elevated temperatures the individual values for inter- and trans-crystalline diffusion were not greatly changed.

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Fluctuations of ± 100% in the value of K_{Fe} were obtained as Ce was increased from 0 to 0.52%, but the overall effect, discounting the fluctuations, appeared to be negligible. This is contrary to the findings of K.P. Bunin and Ya.M. Malinochka that the effect of spheroidisers was to equalise the inter- and trans-crystalline mobilities of the Fe atoms. The experimental and published results show that the effect of Ce, Mg, etc. on the graphite in cast iron is not related to the kinetics of self-diffusion and it is probable that the surface active properties of the spheroidiser are responsible for spheroidisation. The electron orbits of additions appear to influence the shape of the graphite particles, as is seen by comparing the electron structures of spheroidising agents (Li, Na, Mg, K, Ca, Sr, Ba, Ce) with those of de-spheroidising agents (Ti, Cu, Sb, Pb, Bi). Inconsistencies in the behaviour of added elements on the structure of the graphite appears to be due to changes in electron configuration caused by interaction with impurities in the iron. Spheroidisation can also be achieved by additions which ensure the required electron configuration when absorbed on the graphite.

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Effect of cerium content of iron ... S/126/63/015/001/029/029
E073/E151

There are 2 tables.

ASSOCIATION: Khar'kovskiy zavod transportnogo mashinostroyeniya im. V.A. Malysheva
(Khar'kov Transport Engineering Works imeni V.A. Malyshev)

SUBMITTED: April 10, 1962

Card 3/3

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

S/126/63/015/002/024/033
E193/E383

AUTHORS: Lyubchenko, A.P., Sherman, D.G. and Udovikov, V.I.

TITLE: The effect of small magnesium additions on the self-diffusion of iron

PERIODICAL: Fizika metallov i metallovedeniye, v. 15, no. 2, 1963, 295 - 297

TEXT: In continuation of earlier work (A.P. Lyubchenko et al - FMM, 1962, 14, 1; 1962, 14, 6), the present authors studied the nature of self-diffusion of iron modified with additions of magnesium in quantities (0.005 - 0.02%) usually used in the fabrication of high-strength, nodular cast irons. Similar experiments were also carried out on grey and magnesium-modified cast irons. The diffusion of iron was studied at 960 - 1 200 °C. Both the radiometric and outer radiographic methods were used. Conclusions: 1) the grain-boundary diffusion predominates in Mg-bearing iron at 900 - 1 200 °C. 2) The order of magnitude of the self-diffusion coefficient of iron is not affected by Mg additions - the same applying to diffusion of Fe in Mg-modified cast iron. 3) Mg acts as a grain-refining agent and slows down the rate of grain-growth

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S/126/63/015/002/024/033
E193/E383

The effect of ....

in Fe at 960 - 1 100 °C. This is demonstrated in a figure where the grain size (μ) is plotted against the annealing temperature (°C) of armco iron (top curve) and iron with 0.005, 0.14 and 0.02% Mg (lower curves, in this order); the graph has been constructed for specimens annealed for 20 hours. There are 1 figure and 1 table.

ASSOCIATION: Khar'kovskiy zavod transportnogo mashinostroyeniya im. V. A. Malysheva (Khar'kov Transport Machinery Works im. V.A. Malyshev)

SUBMITTED: June 6, 1962 (initially)
August 9, 1962 (after revision)

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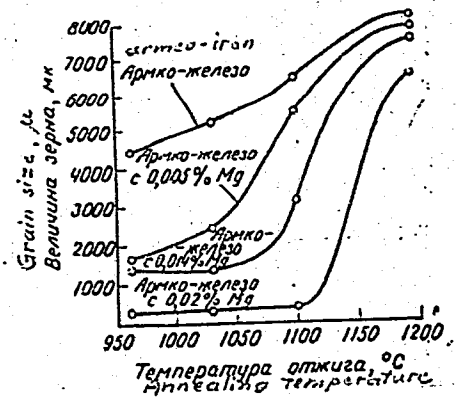
"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

S/126/63/015/002/024/033
E193/E383

The effect of ....

Fig. 1:



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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

LYUBCHENKO, A.P.; SHERMAN, D.G.; TANANKO, I.A.

Modeling the process of cast iron modification on transparent crystals. Fiz. met. i metalloved. 16 no.3:378-384 S '63. (MIRA 16:11)

1. Khar'kovskiy zavod transportnogo mashinostroyeniya imeni V.A.Malysheva.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

LYUBCHENKO, A.P.; SHERMAN, D.G.

Absorptive character of changes in the aspect of ammonium chloride crystals under the effect of NH_4Cl. Fiz. met. i metalloved. 16 no.4:636 O '63. (MIRA 16:12)

1. Khar'kovskiy zavod transportnogo mashinostroyeniya imeni V.A.Malysheva.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

VYGODSKIY, A.I.; NESTERENKO, V.G.; SHERMAN, D.G.

Mass spectrometric determination of hydrogen in metals. Zav.lab. 29 no.12:1474-1475 '63. (MIRA 17:1)

1. Zavod transportnogo mashinostroyeniya.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

LYUBCHENKO, A.P.; MOZHAROV, M.V.; SHERMAN, D.G.

Despheroidizing effect of bismuth on the graphite phase in cast iron. Fiz. met. i metalloved. 17 no.6:853-861 Je '64. (MIRA 17:8)

1. Khar'kovskiy zavod transportnogo mashinostroyeniya imeni Malysheva.

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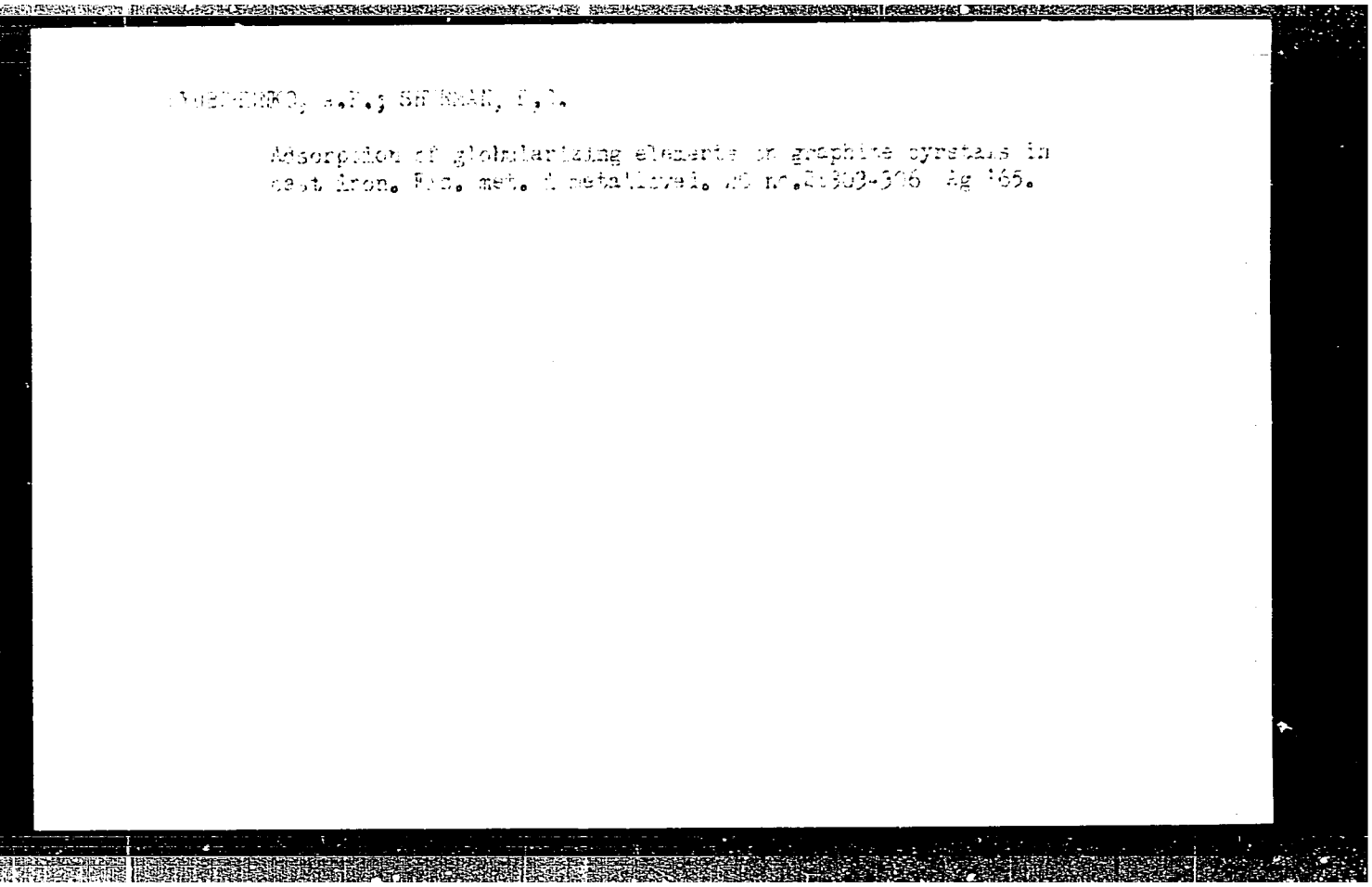

Absorption of globularizing elements on graphite crystals in cast iron. Fiz. met. i metalloved. 20 no.2:303-306 Ag '65.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

LYUBCHENKO, A.P.; SHERMAN, D.G.

Modeling with the use of transparent crystals the deglobularization process of the graphitic phase in cast iron. Fiz.-mat. i metalloved. 20 no.5:712-718 '65. (MIRA 18:12)

1. Submitted October 10, 1964.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

LYUBCHENKO, A.P.; MOZHAROV, M.V.; SHERMAN, D.G., SOLOV'YEVA, Z.P.

Microdistribution of elements in cast iron altering the face cut of graphite crystals. Fiz. met. i metalloved. 18 no.4:[illegible] 572 O '64. (MIRA 18:4)

1. Khar'kovskiy zavod transportnogo mashinostroyeniya imeni Malysheva.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

LYUBCHENKO, A.P.; SHERMAN, D.G.; MOZHAROV, M.V.

Character of the microdistribution of cerium in cast iron.
Lit. proizv. no.3:48 Mr '65. (MIRA 18:6)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549230002-5

ACC NR: AP6033538 SOURCE CODE: UR/0170/66/011/004/0516/0520

AUTHOR: Lyubchenko, A. P.; Tsarina, I. V.; Sherman, D. G.; Shukhov, A. S.

ORG: Transportation Machinery Plant, Khar'kov (Zavod transportnogo mashinostroyeniya)

TITLE: Method of determining temperature fields of machinery-part surfaces inaccessible during operation

SOURCE: Inzhenerno-fizicheskiy zhurnal, v. 11, no. 4, 1966, 516-520

TOPIC TAGS: temperature, temperature dependence, temperature measurement, diffusion method, diffusion parameter, temperature field

ABSTRACT: A method is proposed for determining the temperatures and topologies of the temperature fields of objects which are inaccessible during operation. It is based on the use of the critical dependence of the diffusion parameters of materials on temperature. The method was tested on simple and complex multicomponent heterophase alloys over a wide temperature range (the lowest temperature was 20°C). The alloys tested were 65G, Kh12M, Kh18N9T, EI283, and AK-4 grades, with partial reference made to parts of internal

UDC: 536.5

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ACC NR: AP6033533

combustion engines inaccessible during operation. [Based on authors' abstract]

SUB CODE: 13/SUBM DATE: 03May66/ORIG REF: 004/

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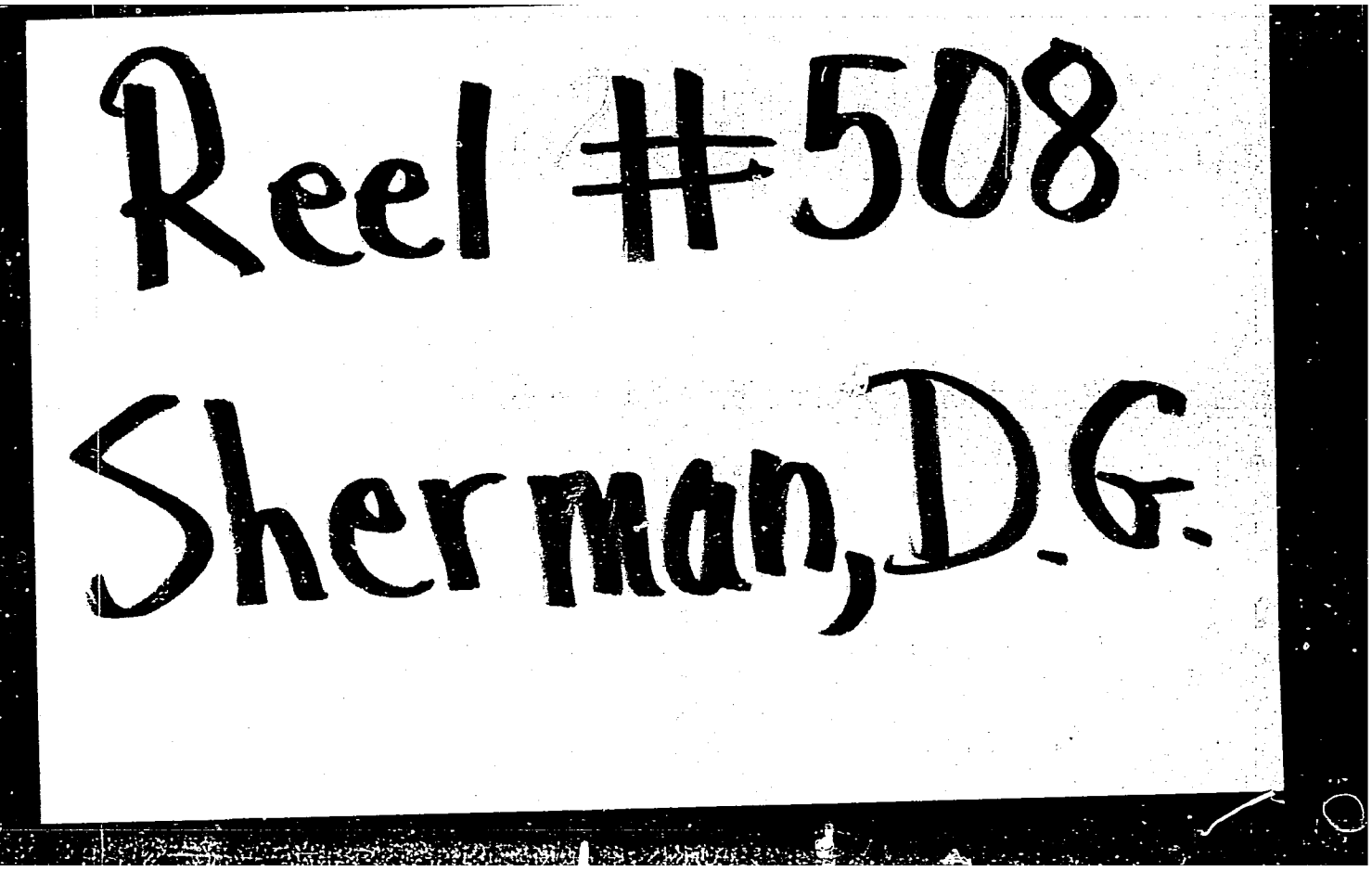

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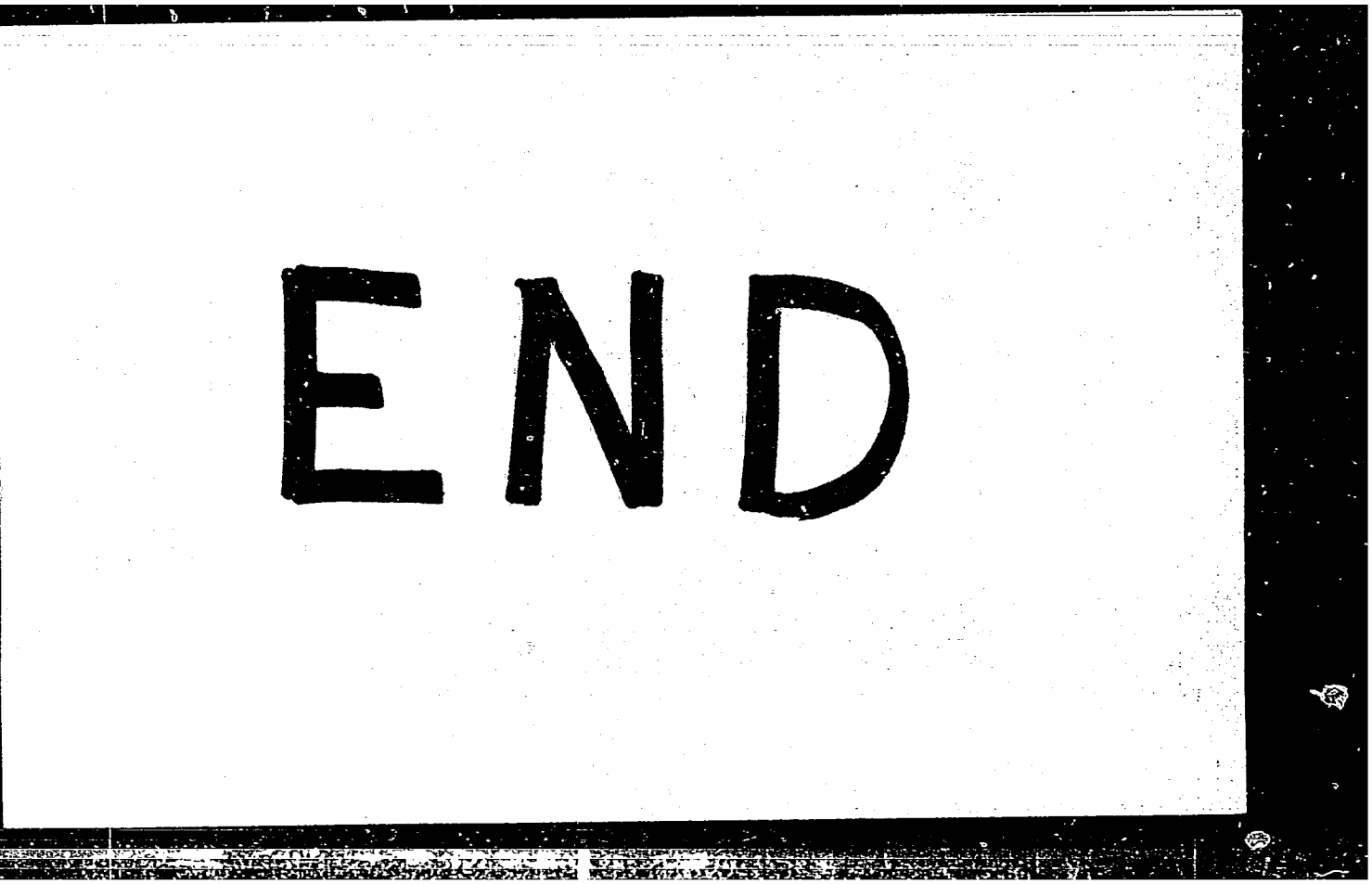

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